

REMARKS**INTRODUCTION**

In accordance with the foregoing, claim 1 has been amended. No new matter has been submitted and reconsideration of the allowability of the claims is respectfully requested.

Claims 1, 3, 6-16, 18-22, 24 and 25 are pending and under consideration.

REJECTION UNDER 35 USC 102

Claims 1, 3, 8-16, 18-22, and 24-25 stand rejected under 35 USC § 102(b) as being anticipated by Aoki, Japanese Publication No. 2000-195060, based on a computer generated English translation from the Japanese Patent Office. This rejection is respectfully traversed.

As explained in the specification, embodiments of the present invention can be directed toward the use of a disc that includes only preformatted waved patterns to delineate between zones. Then, in some embodiments, during the recording of user data, a zone start pattern can be recorded, user data can be recorded, and a zone end pattern can be recorded. Further, after the recording of the zone end pattern, the coupling area can be recorded. The coupling area can permit the capacity of the user data area within the zone to vary, while still not infringing into the next zone. For example, the coupling area can extend from the end zone pattern of a first zone to the start zone pattern of the next zone. Further, since the waved pattern identifying the zone address can be overlapping recorded data, this zone address information could overlap the coupling area, as another example, noting that these are merely examples, with the presently claimed invention not being limited to the same.

With this context in mind, it is respectfully submitted that the following remarks will more clearly emphasize the differences between the claimed invention and Aoki.

By way of review and as an example, independent claim 1 sets forth:

"[a]n optical disc, comprising:

track grooves formed in a radial direction of the disc, with the disc being divided into a plurality of zones, wherein the track grooves are formatted into a waved pattern in the radial direction of the disc, to be overlapping over recorded user data, to record zone address information for each of the divided zones based on a predetermined modulation rule,

wherein each zone has a recording capacity in which an arbitrary recording capacity is added to a data recording capacity needed for each divided zone,

wherein an arbitrary area at an inner and/or outer circumferences in each zone has a coupling area separate from a user data recording area, and

wherein, during recording of the user data, in each zone an arbitrary zone start pattern and/or zone end pattern is additionally recorded."

As the Examiner appears to be relying solely on the English translation of Aoki, the below references to Aoki only refer to what the English translation recites and not what may or may not be disclosed by Aoki.

Accordingly, the Office Action indicates that Aoki discloses all the claimed features of the presently claimed invention. Applicant respectfully disagrees.

First, regarding independent claim 1, independent claim 1 particularly claims "wherein the track grooves are formatted into a waved pattern in the radial direction of the disc, *to be overlapping over recorded user data*, to record zone address information for each of the divided zones." However, drawing 5 of Aoki would appear to indicate that the zone address information is separate from the user data. See paragraph 29 of Aoki, "Drawing 5 shows the condition that the ID section on which zone address information is recorded, and the data (DATA) section on which data are recorded are prepared in each zone per zone in the optical disk 1."

Thus, in the computer generated translation Aoki, there would not appear to be any indication that the underlying reference permits zone address information to overlap user data or a user data area.

Further, it is noted that independent claim 1 further sets forth: "wherein each zone has a recording capacity in which an arbitrary recording capacity is added to a data recording capacity needed for each divided zone, wherein an arbitrary area at an inner and/or outer circumferences in each zone has a coupling area separate from a user data recording area, and wherein, during recording of the user data, in each zone an arbitrary zone start pattern and/or zone end pattern is additionally recorded."

Regarding the claimed arbitrary recording capacity being added to a data recording capacity needed for each divided zone, the Office Action broadly cites Drawings 1, 2 and 5 and Aoki's translated detailed description in paragraphs 7, 8, and 13-15.

Similarly, for the claimed "arbitrary area at an inner and/or outer circumferences in each zone has a coupling area separate from a user data recording area," the Office Action relies on Aoki's translated detailed description in paragraphs 28-30 and Drawing 5.

Further, for the claimed "wherein, during recording of the user data, in each zone an arbitrary zone start pattern and/or zone end pattern is additionally recorded," the Office Action again relies on Drawing 5, and Aoki paragraphs 28-30.

However, as mentioned above, paragraphs 7, 8, 13-15, and 28-30 merely reference the placement of a wobble signal at the beginning of each zone, with that wobble signal includes a zone address of that zone. The zone address is also separate from any DATA information. Thus, paragraphs 28-30 of Aoki would appear to explain that Drawing 5 is applicable to all embodiments, with Drawing 5 appearing to illustrate a data structure for the optical disc embodiments of Aoki, with a zone address "ID" and a zone "DATA" portion, for each zone.

Based on Drawing 5, Aoki would appear to only disclose two distinct areas within each zone, the ID area and the DATA area, with the ID area including the zone address, i.e., the ID area including the wobble zone address information.

Accordingly, the Office Action would appear to be relying on the ID area of Aoki to disclose all of the claimed zone address information, the arbitrary recording capacity being added to a data recording capacity needed for each divided zone, the claimed coupling area, and the additionally recorded start pattern and/or zone end patterns.

In addition, it is briefly noted that the aforementioned citations to Aoki are not specific, but quite general, without an indication of how each claimed feature is being interpreted or which particular feature in Aoki is being relied upon to disclose the corresponding particular claimed feature. Any new Office Action is respectfully requested to include such specifics.

Regardless, as illustrated in drawing 5 of Aoki, the recording capacity of each zone would appear to be set or fixed, noting that in embodiments of the present invention the specification clearly emphasizes that the capacity of each zone is permitted to vary.

Similarly, Aoki would appear to place the zone ID wobble in the ID header of each zone, followed by the DATA area. If the claimed track grooving is interpreted to correspond to the zone ID wobble of Aoki, then Aoki would fail to disclose the "additionally recorded" start/end patterns.

If the start/end patterns are additionally recorded patterns then they cannot be considered equivalent to the claimed zone address information. Thus, they must be distinct, i.e., Aoki does not appear to disclose distinct zone address information and additionally recorded start/end patterns.

Independent claims 11 and 25 include similar start/end patterns, with differing scope and breadth. For example, independent claim 25 particularly claims that, in addition to the formatted

zone address portion, the recording of user data in user data portion of a zone includes "recording of a zone start position, then recording of the user data, then a recording of a zone end position." Again, it is noted that Aoki would only appear to disclose recording zone address information in a zone ID area and data information in the DATA area. There would not appear to be any disclosure in Aoki to support the interpretation that the corresponding DATA area also includes the claimed zone start position and zone end position.

Lastly, as detailed above, independent claim 1 further requires the use of a "coupling" area. It is noted that each claim feature must be considered. Thus, the term "coupling" must be given some weight when interpreting the claim language and cited references. The Office Action would appear to interpret the ID area in Aoki as corresponding to the claimed "coupling" area. However, the ID area of Aoki would not appear to be performing any coupling operation. Rather, the ID area in Aoki would appear to merely be a header of that corresponding zone. There would not appear to be any coupling being performed, between zones or between any other feature in the invention of Aoki.

Dependent claims 15, 16, and 20, and independent claim 24 includes a similar coupling area/portion, with differing scope and breadth.

It is also noted that claims 1, 11, and 24-25 further require each zone to have a recording capacity in which an *arbitrary* recording capacity is added, an *arbitrary* area at an inner and/or outer circumferences in each zone, and during recording of the user data additionally recording in each zone an *arbitrary* zone start pattern and/or zone end pattern.

Thus, it is respectfully submitted that Aoki fails to disclose or suggest all the claimed features of independent claims 1 and 11.

Therefore, for at least the above, it is respectfully requested that this rejection of independent claims 1, 11, and 24-25 be withdrawn and claims 1, 11 and 24-25 be allowed. At least for similar rationale, it is respectfully submitted that claims depending from independent claims 1, 11, and 24-25 are also in proper condition for allowance.

REJECTION UNDER 35 USC 103

Claims 6 and 7 stand rejected under 35 USC § 103(a) as being obvious over Aoki, in view of Maeda, U.S. Patent No. 6,028,828. This rejection is respectfully traversed.

It is respectfully submitted that Maeda at least fails to disclose the deficient features of Aoki, as well as any suggestion for the same. Accordingly, it is respectfully submitted that neither

Aoki nor Maeda disclose or suggest the presently claimed invention, alone or in combination.

Therefore, for at least the above, it is respectfully requested that this rejection be withdrawn and claims 6 and 7 be allowed.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

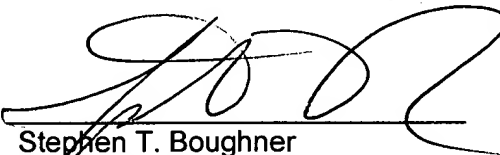
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: 10/12/04

By: 
Stephen T. Boughner
Registration No. 45,317

1201 New York Avenue, NW, Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501